

## **2.0 REMARKS**

Reconsideration and allowance of the subject application are respectfully requested.

Claims 1- 28 are pending in the application. Claims 5-9 have been objected to and claims 1, 2, 3, 4, 10-14, 15, 16, 17-22 and 24-28 have been rejected. The Examiner also objected to claim 23 and indicated it could be allowable with appropriate amendments.

By this response, claim 3 has been amended and therefore claims 1 - 28 remain pending in the application.

## **2.1 REJECTIONS UNDER 35 USC 103(a)**

Independent claim 1 and independent claim 15 recite a novel combination of structure and/or function including, inter alia,:

a third drive includes an air propeller mount for receiving a first air propeller,

a second drive is coupled to a shaft for receiving a second air propeller,

such that the first drive operates the second drive and the third drive in opposite directions counter rotating the air propeller mount and the air propeller output drive shaft.

This clearly distinguishes over all of the cited references.

### **2.1.1 Gornstein et al in view of Suzuki**

Claims 1, 2, 15 and 16 were rejected under 35 USC 103(a) as being unpatentable over Gornstein et al in view of Suzuki.

Applicants respectfully traverse all art rejections.

The Gornstein et al reference is directed to a propulsion system for a hydrofoil watercraft and in particular teaches a set of dual water propellers affixed to a stern drive and a set of dual air propellers all coupled to a common source of power to overcome problems during a transition from a hull borne mode to a foil borne mode.

The water propellers drive the watercraft in a hull borne mode and the air propellers drive the watercraft in the foil borne mode. However, there is a significant problem when attempting to transition from the hull born mode to the foil borne mode, "In order to generate a maximum constant thrust during the transition of the hydrofoil from hull borne to foil borne operation, variable pitch air propellers 18 are provided to use any horsepower not used by the water propellers 16 ..." (see column 3, lines 56 - 63). Furthermore, the air propellers 18 are aircraft grade, "the air propellers 18 utilize blades such as the Hamilton Standard 7111A-18 mounted on a conventional constant-speed hub 19" (see column 3, lines 64 - 66).

Also of particular interest, Gornstein et al also point out that "air propellers are not as effective as water propellers in accelerating the craft to the transition speed" (see column 1, lines 52 - 54) and indicate the need for a propulsion system that provides acceleration and maneuverability for both the hull borne mode and the foil borne mode.

Gornstein et al, alone or in combination with Suzuki, clearly fails to disclose, teach, or make obvious a counter rotating air propeller drive system for an airboat as claimed by the Applicant, nor is it directed to the problems solved by Applicant's invention.

The Suzuki reference is solely directed to a marine outboard drive and in particular teaches improved lubrication (see column 1, line 6, line 21, line 24, line 27, line 38; column 3, line 9, line 10, line 21) where the drive and propellers are in water.

Suzuki clearly fails to disclose or suggest a counter rotating air propeller drive system, nor is it directed to the problems solved by Applicant's invention. There is no need for an improved lubrication system.

Applicants respectfully submit that a person skilled in this art would NOT be motivated to combine the teachings of Gornstein et al and Suzuki. It is clearly stated in Gornstein et al that maximum thrust is required during the transition period and variable pitch propellers provide maximum power to overcome this problem. Also clearly stated in Gornstein et al, air propellers are not as effective as water propellers.

Clearly, a person skilled in the art would not look to a drive solely directed to water propellers nor be motivated to apply it to a drive for air propellers. Such an attempt would impact the

ability to generate maximum thrust during the transition period and thereby defeat the stated advantage.

If a person were motivated, then one would only find an improved water drive with better lubrication in Gornstein et al.

**2.1.2 Gornstein et al in view of Suzuki and Eichinger et al**

Claims 3, 4, 10-14, 17-22, and 24-28 were also rejected under 35 USC 103(a) as being unpatentable over Gornstein et al in view of Suzuki and further in view of Eichinger et al. Applicants respectfully traverse all art rejections.

The Eichinger et al reference is directed to a steerable propeller for watercraft and in particular teaches a more reliable support for a hollow drive shaft. The drive is solely directed to use in water (see column 2, line 47).

Eichinger et al, alone or in combination with Gornstein et al and/or Suzuki, clearly fails to disclose, suggest, or make obvious a counter rotating air propeller drive system as claimed by the Applicant, nor is it directed to the problems solved by Applicant's invention.

Applicants respectfully submit that a person skilled in this art would NOT be motivated to combine the teachings of Gornstein et al and Suzuki and further in view of Eichinger et al. As stated in Gornstein et al, air propellers are not as effective as water propellers and thereby defeat the stated advantage.

Clearly, a person skilled in the art would not look to a drive solely directed to water propellers nor be motivated to apply it to a drive for air propellers. One would not look in an area having less effective thrust where maximum thrust is essential.

Again, if a person were motivated, then one would only find an improved water drive in Gornstein et al.

### **2.1.3 SUMMARY**

In summary, there is no suggestion or motivation which could lead a person skilled in the art to combine the cited art in the manner proposed. Absent a hindsight analysis, there is no suggestion in the cited art as to the desirability of such a combination. A hindsight mosaic of references is not a valid basis for rejection under 35 USC 103. In re Adams, 148 USPQ742 (CPPA 1966) and In re Skoll, 187 USPQ 481, 484 (CCPA 175). Further in Twin Disc Inc. v. United States, 10 Cl. Ct. 713; 231 USPQ 417, 425 (Cl. Ct. 1986), the Court stated:

... it is now clear beyond cavil that it is not permissible to ascertain factually what the inventors did and then view the prior art in such a manner as to select from the random facts of that art only those which may be modified and then utilized to reconstruct the claimed invention.

Citing Orthopedic Equipment Co., Inc. v. United States, 702 F.2d 1005, 1012; 217 USPQ 193, 199 (Fed. Cir. 1983), the Court in

Twin Disc further states that it is incorrect to use the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit.

Therefore, Applicants respectfully submit that claims 1 and 15 are fully patentable over the cited art.

#### **2.2 OBJECTIONS UNDER 37 CFR 1.75**

Claims 5-9 were objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim.

Claim 3 has been amended to remove the multiple dependencies and therefore, claims 5-9 no longer have multiple dependencies.

#### **2.3 DEPENDENT CLAIMS**

Dependent claims 2 through 14 depend upon independent claim 1. Dependent claims 16 through 28 depend upon independent claim 15. Therefore, the dependent claims are also allowable.

#### **2.4 CONCLUSION**

For all of the reasons advanced above, Agent for the Applicant respectfully submits that the application is in condition for allowance, which Notice of Allowance is solicited.

In re: Joseph Varga  
Filed: November 21, 2003  
Serial No.: 10/717,529

The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to our Deposit Account No. 501388.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the Deposition Account No. 501388.

Respectfully submitted,

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